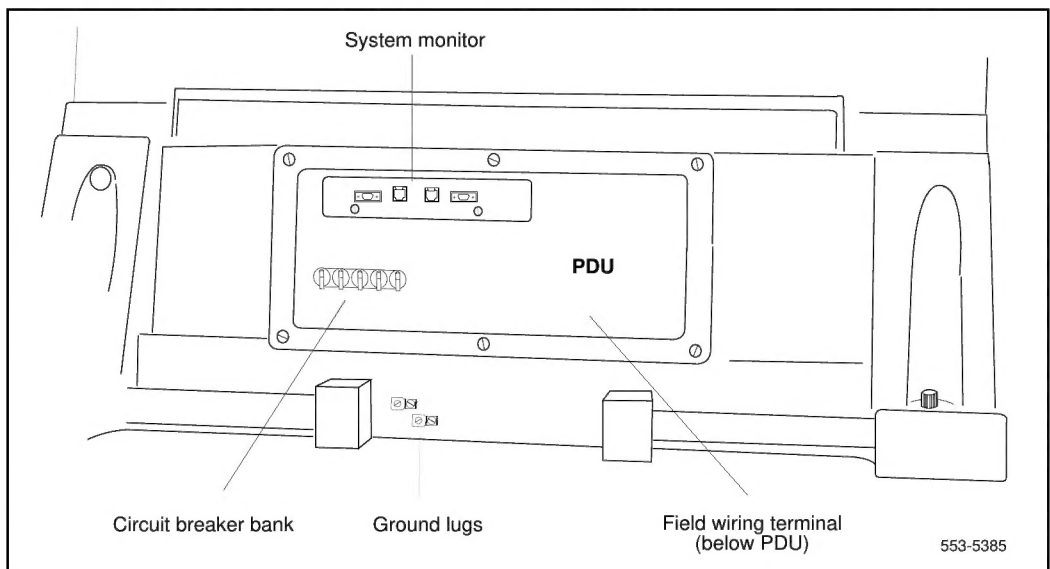


Appendix B: NT7D10 PDU connections

Figure 183 shows the location of the vintage AA or DA NT7D10 PDU in the rear of the pedestal. To connect the external power system to the PDU, use the following procedure for each column (this procedure gives the connections for a four-module column).

The -48 V (BAT), 48 V return (RTN), and logic return (LRTN) wires must be installed in conduit, and must be installed in the same conduit.

Figure 183
Power equipment in the rear of the pedestal—NT7D10 PDU



Connecting power to the NT7D10 PDU

- 1 To access the field wiring terminal block (TB1) in the bottom of the pedestal, you must remove the PDU:
 - Remove the I/O safety panel in module 0 (bottom module).
 - Disconnect the power plug (J1) and the system monitor ribbon cable between module 0 and the PDU.

Note: To disconnect the power plug, you must press a latch trip on the front and rear of the plug. You may need to use a screwdriver blade against the latch trip on the front of the plug.

- If the module has an SDI paddle board installed on the backplane, temporarily remove the paddle board to avoid damage.
 - Disconnect cables from the faceplate of the system monitor.
 - Loosen the retaining screws that secure the PDU and pull the unit out of the pedestal.
- 2 If a junction box is used, insert the conduit from the junction box into one of the conduit access holes in the pedestal.

Connect the wires from the junction box to the matching connections on the terminal block in the pedestal:

- Connect the red wires to BAT 0 through BAT 3.
- Connect the black wires to RTN 0 through RTN 3.
- Connect the remaining wire (orange or white) to LRTN.

Note: If a junction box is used, the connections described in steps 3 through 5 apply to the junction box rather than to the PDU.

3 Connect the red BAT (–48 V) wires:

- At the power plant:

For an MFA150 or NT6D82, connect two wires to the first two circuit breakers in the main control/distribution panel (see [Figure 184](#) for MFA150, [Figure 185](#) for NT6D82).

For a QBL12 or QCA13, connect two wires to the first two available 30-amp fuse output connections on the –48 V terminal panel (see [Figure 186](#)).

Note: Each 30-amp fuse output has two connection points on the distribution panel. Only one 30-amp connection point is required for every two modules; typically, #6 AWG is adequate (#4 AWG can be used).

For a QBL15, connect the wires to terminals 1, 2, or 3 (DISCHARGE) on TB1 (see [Figure 187](#)).

- At the pedestal, connect the wires to the terminal block:

For modules 0 and 1, connect to BAT 0 and add a strap (if not already installed) between BAT 0 and BAT 1.

For modules 2 and 3, connect to BAT 2 and add a strap (if not already installed) between BAT 2 and BAT 3.

4 Connect the black BATRTN (48 V return) wires:

- At the power plant:

For an MFA150 or NT6D82, connect two wires to the ground bus/LRE.

For a QBL12 or QCA13, connect two wires to the LRE.

For a QBL15, connect two wires to the positive bus.

- At the pedestal, connect the wires to the terminal block:

For modules 0 and 1, connect to RTN 0 and add a strap (if not already installed) between RTN 0 and RTN 1.

For modules 2 and 3, connect to RTN 2 and add a strap (if not already installed) between RTN 2 and RTN 3.

5 Connect the LRTN wire (orange or white):

- At the power plant:

For an MFA150 or NT6D82, connect the wire to the ground bus/LRE.

For a QBL12 or QCA13, connect the wire to the LRE.

For a QBL15, connect the wire to the positive bus.

- At the PDU, connect the wire to LRTN on the terminal block.

6 Reinstall the PDU:

- In the front of the pedestal, set the switch on the front of the blower unit to OFF (down). Unseat the blower unit. Slide the unit forward approximately 7.5 cm (3 in.).
- Insert the PDU and secure it with its retaining screws.
- Insert the blower unit until it is properly plugged into the PDU. Set the switch to ON.
- Reconnect the system monitor and power cables from module 0 to the pedestal.
- Reinstall the SDI paddle board on the backplane if one was removed.
- Reinstall the I/O safety panel.
- Reconnect cables to the faceplate of the system monitor.

7 Close the covers on the power plant.

To connect the NT8D22 system monitor, go to the appropriate chapter:

- **For an MFA150 or NT6D82**, see “Configuring the system monitor” on page 93.
- **For a QBL12, QBL15, or QCA13**, see Appendix A.

Figure 184
PDU to MFA150 connections

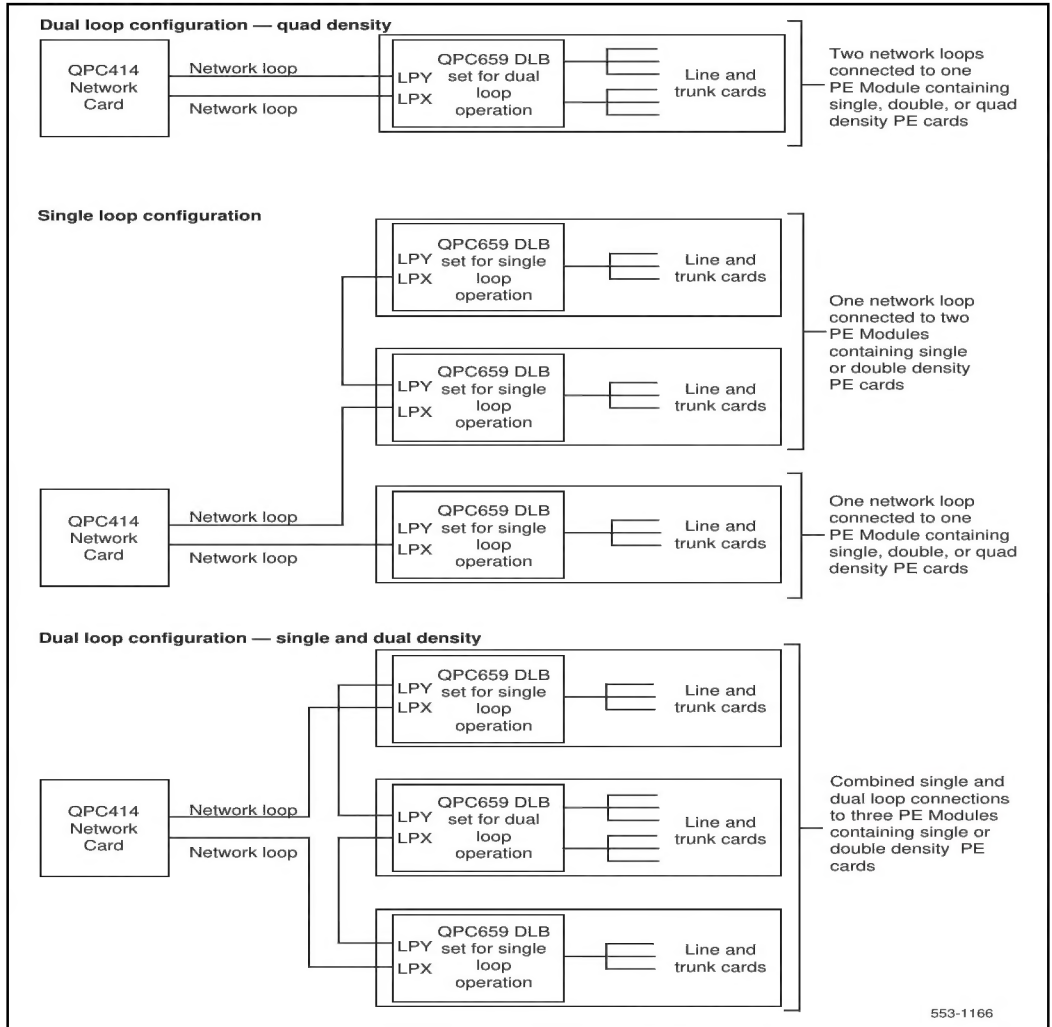


Figure 185
PDU to NT6D82 connections

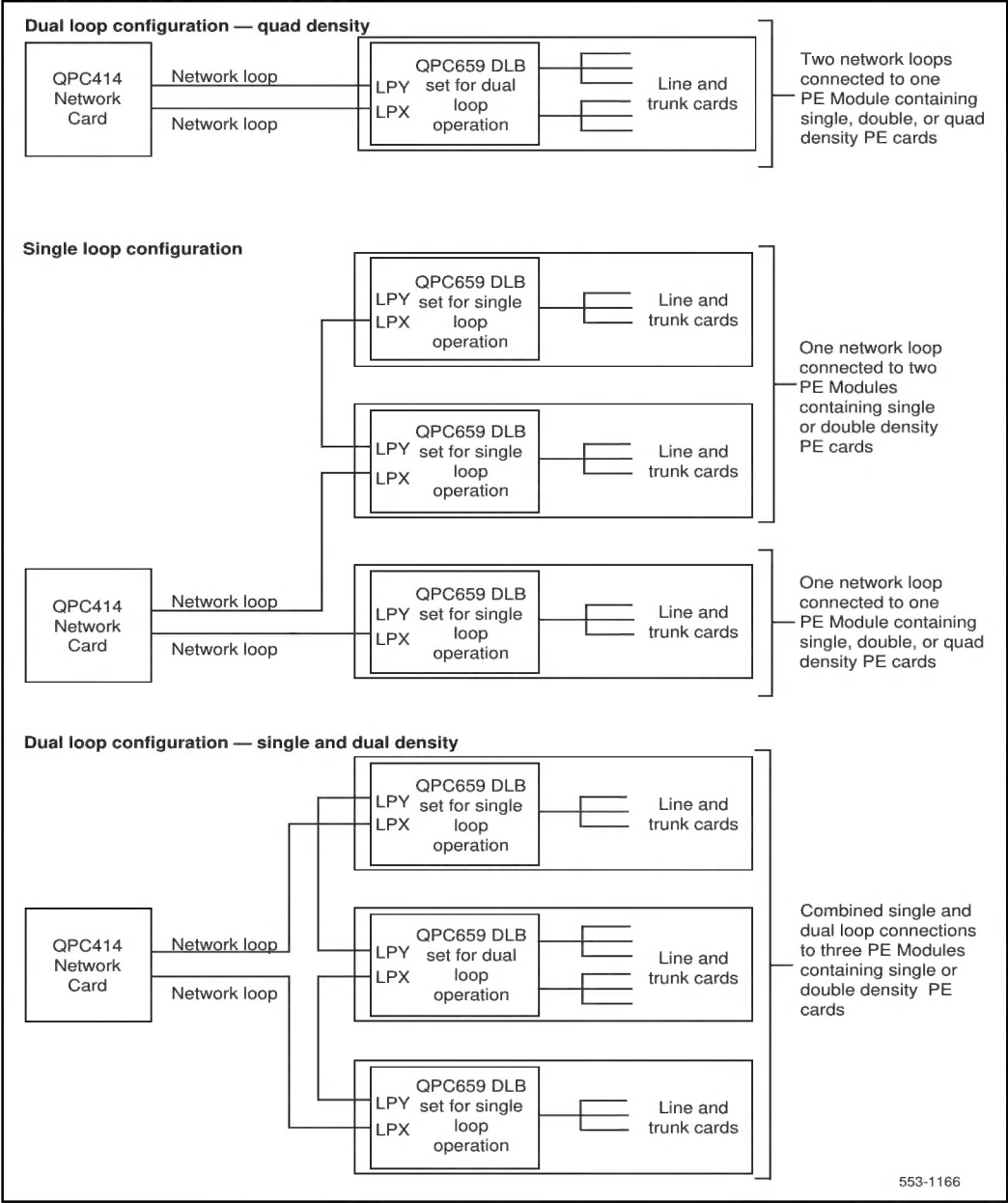


Figure 186
PDU to QBL12 or QCA13 connections

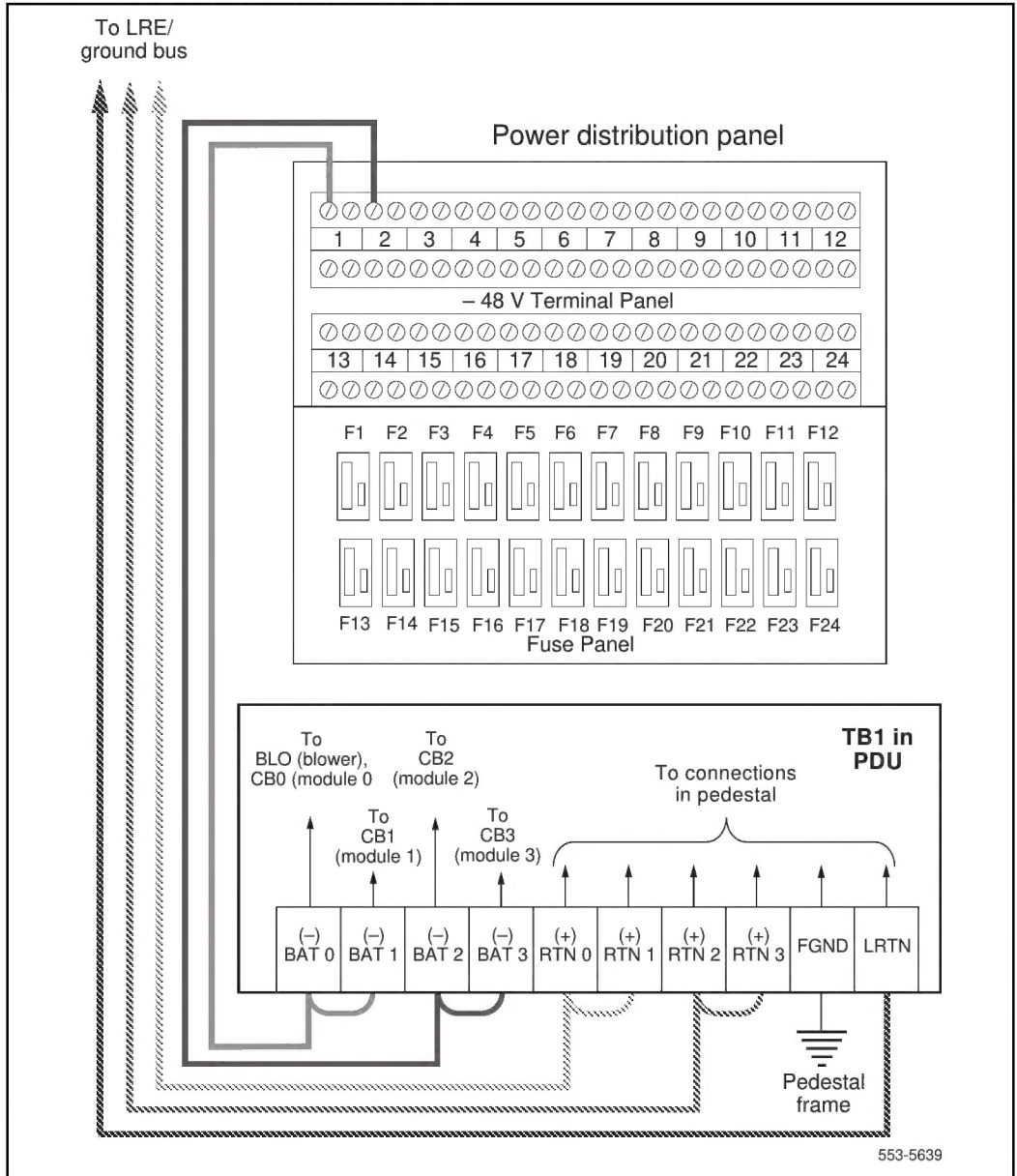
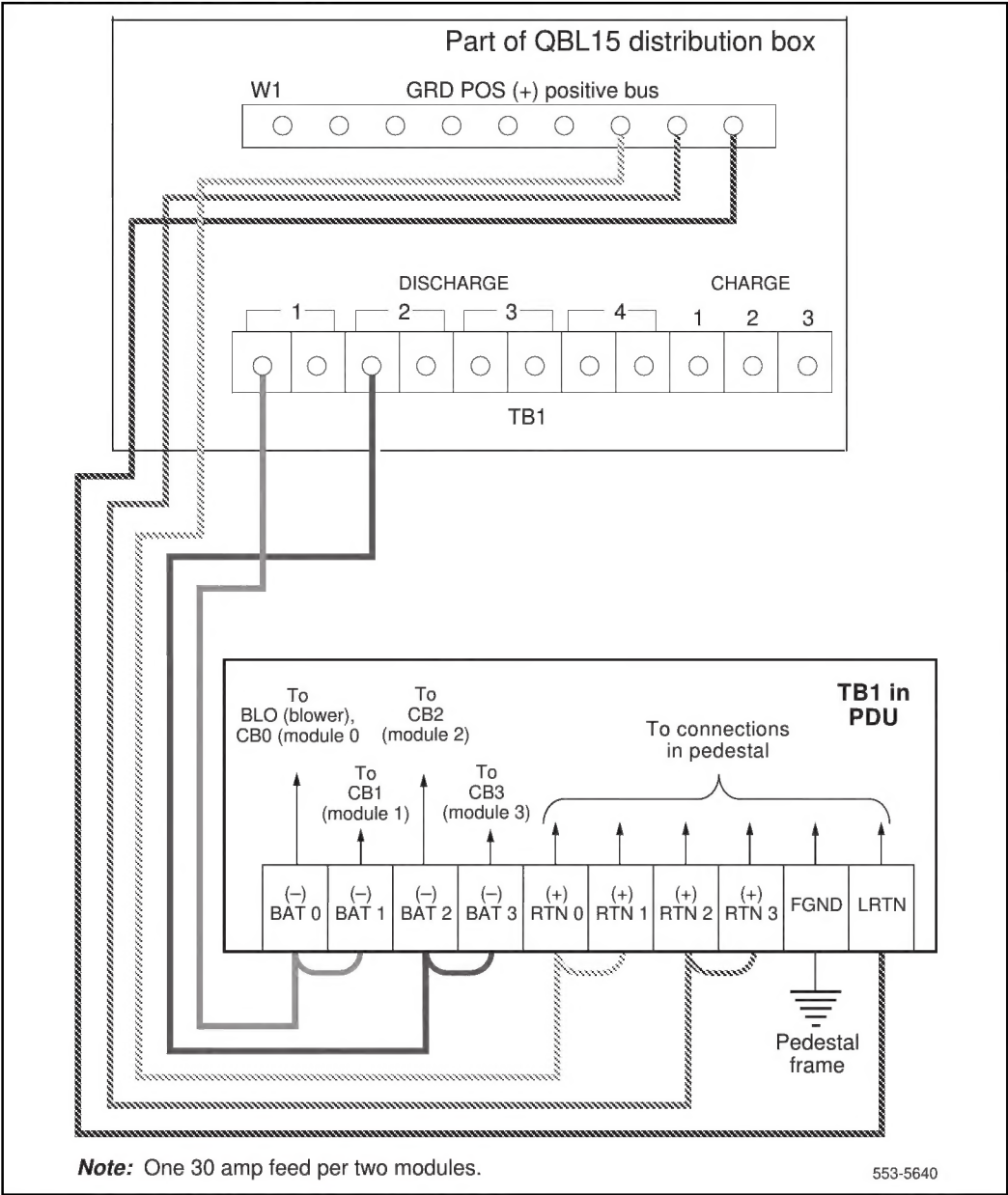


Figure 187
PDU to QBL15 connections

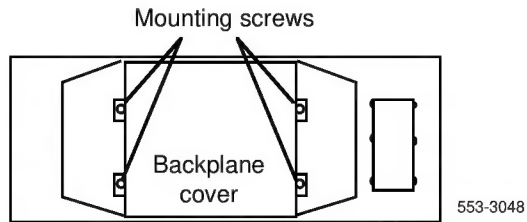


Connecting UK power to the NT7D10 PDU

Use the following procedure for each column to connect the external power supply to the pedestal.

The -48V (BAT), +48V (RTN), and logic return (LRTN) wires must be installed in conduit, and must be installed in the same conduit.

- 1 Open the front panel on the 8B/2R or 8B/4R master power cabinet.
- 2 Remove the PDU to access the field wiring terminal block (TB1) in the bottom of the pedestal:
 - Remove the backplane cover on the I/O assembly in module 0.

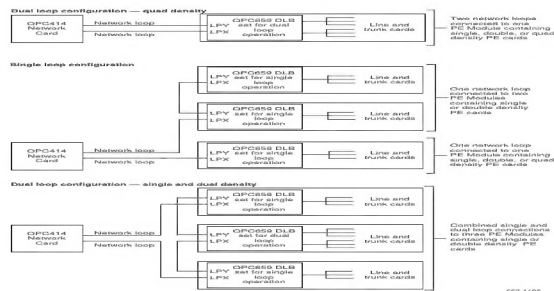


- From the PDU end, disconnect the power plug (J1) and system monitor ribbon cable between module 0 and the PDU.

Note: To disconnect the power plug, you must press a latch trip on the front and rear of the plug. You may need to use a screwdriver blade against the latch trip on the front of the plug.

- If the module has an SDI paddle board installed on the backplane, temporarily remove it to avoid damage.
- Disconnect cables to the system monitor faceplate.
- Loosen the retaining screws that secure the PDU.

- 3 If required, install a junction box near the appropriate pedestal. Insert the conduit from the junction box into one of the conduit access holes in the pedestal.



Connect the wires from the junction box to the matching connections on TB1 in the pedestal:

- Connect the red wires, BAT0 through BAT3.
- Connect the black wires, RTN0 through RTN3.
- Connect the remaining wire (which is usually orange), LRTN.

If a junction box is used, the connections described in Steps 3 through 5 apply to the junction box rather than the pedestal.

- 4 Connect red-BAT wiring from any of the terminals 1 to 8 on the –VE distribution rail of the master power cabinet to terminal block TB1 in the bottom of the pedestal. See [Figure 188](#).

Since one wire is used to feed –48 V to two UEMs (total of two red wires for ?BAT connections) connect as follows:

- For UEM 0 and UEM 1, connect to –BAT0 and add a strap (if not already installed) between –BAT0 and –BAT1 in the pedestal or in the junction box if one is provided.
- For UEM 2 and UEM 3, connect to –BAT2 and add a strap (if not already installed) between –BAT2 and –BAT3 in the pedestal or in the junction box if one is provided.

- 5 Connect the RTN wiring (black wires) from the +VE BUS in the master power cabinet to terminal block TB1 in the bottom of the pedestal. See [Figure 188](#).

Since one wire is used to feed +48 V to two UEMs (total of two black wires for +RTN connections) connect as follows:

- For UEM 0 and UEM 1, connect to +RTN0 and add a strap (if not already installed) between +RTN0 and +RTN1 in the pedestal or in the junction box if one is provided.
 - For UEM 2 and UEM 3, connect to +RTN2 and add a strap (if not already installed) between +RTN2 and +RTN3 in the pedestal or in the junction box if one is provided.
- 6** Connect an orange #8 AWG LRTN wire from the logic return equalizer (LRE) in the rear of the master power cabinet to LRTN on terminal block TB1 in the pedestal. See [Figure 188](#).
- 7** Reinstall the PDU:
- Unseat the blower unit in the front of the pedestal. Set the switch on the front of the unit to OFF (down). Slide the unit out approximately 75 mm (3 in).
 - Insert the PDU and secure it with its retaining screws.
 - Insert the blower unit until it is properly plugged into the PDU. Set the switch to ON.
 - Reconnect the system monitor and power cables from module 0 to the pedestal.
 - Reinstall the SDI paddle board on the backplane if it was removed.
 - Reinstall the backplane cover.
 - Reconnect any cables that were disconnected from the system monitor.
- 8** Replace the rear and top covers of the master power cabinet.

Figure 188
UEM to 8R/2R or 8B/4R master power cabinet connections

